Surveying Nearshore Habitat Using ShoreZone and the Rapid Shoreline Inventory

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Abstract

Development along shorelines coupled with the uncertain status of many species that use nearshore habitat has generated a strong interest in both describing what natural resources occur along shorelines and understanding why they occur there. Two survey approaches are compared: (a) the ShoreZone Inventory method, which is based on aerial overflight imagery and has been applied throughout Puget Sound and the Georgia Basin and (b) the Rapid Shoreline Inventory method that is based on ground observations by citizens groups and has been applied on targeted sections of the Puget Sound shoreline. The type of survey employed ultimately depends on the intended uses of the information.

Due to logistical and cost constraints in measurement, grain (resolution) and extent are strongly correlated such that a large extent survey has a coarse grain (low resolution) while a survey with a small extent can have a fine grain (high resolution). Data content is also correlated with grain such that far more variables are measured in fine-grained studies. The goal of any survey is to accurately describe nature, which itself has a fine grain and a very large extent. These general rules of scale suggest that multiple methods of inventorying natural resources should be employed at different scales to accurately describe natural resources, answer specific research questions, and adequately address management needs.